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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,559

03/18/2004

Gunter Krasser

P2003,0160

5672

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ESCHWEILER & ASSOCIATES, LLC
NATIONAL CITY BANK BUILDING
629 EUCLID AVE., SUITE 1000
CLEVELAND, OH 44114

EXAMINER

YUN, EUGENE

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

06/06/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@eschweilerlaw.com

Office Action Summary	Application No. 10/803,559	Applicant(s) KRASSER ET AL.	
	Examiner EUGENE YUN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Sawai et al. (US 5,590,412).

Referring to Claim 1, the applicant's admitted prior art teaches a circuit for communicating signals, comprising:

a transmit amplification device for transmitting signals (see TX and PA in fig. 3 "prior art");

a receive amplification device for receiving signals (see RX and LNA in fig. 3 "prior art");

an antenna connected to the amplification devices (see A in fig. 3 "prior art");.

The applicant's admitted prior art does not teach a joint amplification stage common to the transmit and receive amplification devices and configured such that a terminal serves as an input in a first operating state of the circuit and as an output in a second operating state of the circuit.

Sawai teaches a joint amplification stage common to the transmit and receive amplification devices (see fig. 4 where both the transmitter and receiver go through both the stage comprising the amplifiers 23 and 24 and the stage comprising the amplifier 8)

and configured such that a terminal serves as an input in a first operating state of the circuit and as an output in a second operating state of the circuit (see col. 6, line 62 to col. 7, line 8 and fig. 4 noting that switches 4, 6, and 7 determine the operating state). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Sawai to the applicant's admitted prior art in order to decrease hardware costs and the size of a transceiver.

Referring to Claim 2, Sawai also teaches the joint amplification stage including a symmetrical MOS transistor (see the FET transistors in fig. 7 which represents the amplifiers in the joint amplification stage).

Referring to Claims 3 and 10, Sawai also teaches that each of the amplification devices includes first and second said amplification stages, the first and second amplification stages of the transmit device operationally corresponding to the first and second amplification stages of the receive device, respectively, and wherein the joint amplification stage is the first amplification stage of the receive amplification device (see fig. 4 where the receiver's first amplification stage is the stage comprising amplifiers 23 and 24, which is the joint amplification stage and then proceeds to the amplification stage comprising amplifier 8) and is also the second amplification stage of the transmit amplification device (see fig. 4 where the joint amplification stage comprising amplifiers 23 and 24 is the stage the signal goes through after the first amplification stage comprising amplifier 8).

Referring to Claims 4, 7, 11 and 14, Sawai also teaches a first switching device connected to one of the amplification stages of the transmit amplification device other

than the joint amplification stage for switching off the transmit amplification device while the receive amplification device is receiving signals (see 6 of fig. 4), and a second switching device connected to one of the amplification stages of the receive amplification device (see 7 of fig. 4) other than the joint amplification stage for switching off the receive amplification device while the transmit amplification device is transmitting signals (see col. 6, lines 49-53).

Referring to Claims 5, 6, 8, 9, 12, 13, 15, and 16, Sawai also teaches that the receive amplification device has an input impedance that is matched to a load impedance of the transmit amplification device (see col. 8, lines 60-66 noting the amplifier matching circuits 111 and 112 in fig. 6).

Response to Arguments

3. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's arguments filed 2/21/2008 have been fully considered but they are not persuasive.

The newly amended claim 1 is not believed by the examiner to overcome the Sawai reference. Firstly, the newly added limitations simply state "a terminal". It does not state that the "terminal" is the terminal of the joint amplification stage, as the arguments state. Therefore, the examiner can assume that the terminal is the communications terminal itself. Secondly, the Sawai reference is believed to clearly teach first and second operating states, which are both taught by how the switches 4, 6,

and 7 (fig. 4) are set. Therefore, since the amplifiers 23 and 24 of the Sawai reference are used for both transmission and reception operation, depending on the setting of the switches, and since the term "terminal" does not necessarily mean the terminal of the joint amplifier, the Sawai reference teaches a joint amplification stage common to the transmit and receive amplification devices and configured such that a terminal serves as an input in a first operating state of the circuit and as an output in a second operating state of the circuit.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUGENE YUN whose telephone number is (571)272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun
Primary Examiner
Art Unit 2618

/E. Y./
Primary Examiner, Art Unit 2618
/Eugene Yun/
Primary Examiner, Art Unit 2618

/Matthew D. Anderson/
Supervisory Patent Examiner, Art Unit 2618